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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

LY, CHEYNE D

ART UNIT

PAPER NUMBER

1631

16

DATE MAILED: 08/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/737,190

Applicant(s)

SHIBUYA, TETSUO

Examiner

Cheyne D Ly

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on June 25, 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 1 and 3-11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2 and 12 is/are rejected.
- 7) ☒ Claim(s) 12 is/are objected to.
- 8) ☒ Claim(s) 1-12 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- ☐ Interview Summary (PTO-413) Paper No(s). _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

1. Applicants' arguments in Paper No. 15, filed June 25, 2003, have been fully considered but they are not deemed to be persuasive. Rejections and/or objections not reiterated from previous office actions are hereby withdrawn. The following rejections and/or objections are either reiterated or newly applied. They constitute the complete set presently being applied to the instant application.
2. The addition of new claim 12 is acknowledged.
3. Claims 2 and 12 are examined on the merits.

OBJECTIONS

4. Claim 12 is objected to because of the following informalities: Claim 12, line 5, contains the phrase "that that". Appropriate correction is required.

NEW CLAIM REJECTION - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
2. Specific to lines 3 and 9, there is insufficient antecedent basis for the phrase "the target" in the claim.

CLAIM REJECTIONS - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 2 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. This rejection is maintained with respect to claims 2, as recited in the previous office action Paper No. 14, mailed March 25, 2003. The instant rejection is hereby extended to new claim 12.
6. Applicant's argument via amendment to claim 2 has been acknowledged and found to be unpersuasive because the said amendment does not help Applicant overcome the vague and indefinite issue of claims 2 and newly added claim 12 as discussed below.
7. Claim 2, line 1, and claim 12, line 1, the preamble recites a method for analyzing the structure of a target array while the body of the claim recites steps for changing a variable that is included in a target array. Claims 2 and 12 are vague and indefinite because it is unclear whether the target array, which is embodied in this method claim, is an apparatus such as a microarray, a data structure or the data representing the elements of the array apparatus. Clarification of the metes and bounds is required.

NEW CLAIM REJECTIONS - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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9. Claims 2 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Jensen et al. (April 2000) taken with Eisen (1999).
10. This rejection is necessitated by Applicants amendments.
11. Jensen et al. discloses a method for functional annotation associated with each gene or ORF was converted into a pseudo-sequence by removal of all non-alphanumeric characters...For each of the approximately 10 000 words in the dictionary, the set of 500 bp upstream regions was divided into a corresponding positive set consisting of the sequences containing the word in their functional annotation and negative set not containing the word (Page 327, column 2, lines 30-37 to Page 328, column 1, lines 1-3).
“The two strands are treated separately when counting patterns. By doing so we gain sensitivity on patterns that show strong preference for one orientation” (Page 327, column 1, lines 43-47). “In the first sweep, the number of sequences containing each pattern is stored in one counter. During the second sweep, the number of these sequences yet encountered and the highest value of $|N_{x_i} - n_i|$ so are stored in two other counters” (Page 328, column 1, lines 33-37). Table 3 (Page 330) discloses the converted data from three microarray experiments and the array data is analyzed respective of each other, as in instant claims 2 and 12.
12. However, Jensen et al. does not specify a method for analyzing the structure of an array.
13. Eisen discloses a method for analyzing the structure a DNA array and the location of each DNA target contain within an array via a GRIDDING process (page 4, lines 9-31). After “gridding” the first array from a batch, it is generally possible to use this initial grid for all subsequent arrays in the batch (page 20, lines 6-9), as in claims 2 and 12.

14. It is noted that Jensen et al. discloses a general method for analyzing large amount of data generated from DNA arrays (abstract etc.), thus, suggests that the method of Jensen could be applied to any DNA array data of which Eisen is a specific array analysis that is therefore suggested within the generic Jensen et al. description.
15. Eisen discloses a method for analyzing the structure and the location of each DNA target contain within an array via a GRIDDING process (page 4, lines 9-31). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to use the method of analyzing the structure of a DNA array as taught by Jensen et al. and Eisen.

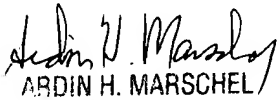
CONCLUSION

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).
17. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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18. This application contains claims 1 and 3-11 drawn to an invention nonelected with traverse in Paper No. 13. A complete reply to the final rejection must include cancelation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.
19. Papers related to this application may be submitted to Technical Center 1600 by facsimile transmission. Papers should be faxed to Technical Center 1600 via the PTO Fax Center located in Crystal Mall 1. The faxing of such papers must conform with the notices published in the Official Gazette, 1096 OG 30 (November 15, 1988), 1156 OG 61 (November 16, 1993), and 1157 OG 94 (December 28, 1993) (see 37 CFR § 1.6(d)). The CM1 Fax Center number is either (703) 308-4242 or (703) 305-3014.
20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. Dune Ly, whose telephone number is (703) 308-3880. The examiner can normally be reached on Monday-Friday from 8 A.M. to 4 P.M.
21. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward, Ph.D., can be reached on (703) 308-4028.
22. Any inquiry of a general nature or relating to the status of this application should be directed to Legal Instruments Examiner, Tina Plunkett, whose telephone number is (703) 305-3524 or to the Technical Center receptionist whose telephone number is (703) 308-0196.

C. Dune Ly
8/19/03


ARDIN H. MARSCHEL
PRIMARY EXAMINER